Among the innumerable agents which possess the power of destroying life, there exist an immense number, which the Medical philosopher cannot, by any means, consider as diseases: no one, for instance, would think for a moment of giving that name to the bullet which slays the soldier in battle, or the thunderbolt which strikes the ploughman dead in the fields; the same, of course, might be said of all the various causes of violent death; now, reasoning by analogy, might we not place a large number of so-called diseases in the same class? A tumour which, by its situation, compresses the windpipe, and gradually increasing in size, superinduces suffocation at last; a stricture of the œsophagus, which prevents the passage of food into the stomach, and ultimately starves the patient to death; are not these mechanical obstructions, which, acting as impediments to some of the more important functions of life, gradually bring on death, by a slow, but inevitable process? It would, of course, be superfluous to adduce other instances to the same purpose, but we are supported by the authority of Professors Trousseau and Pidoux, in assimilating to such cases those valvular affections of the heart, which, by constantly opposing the natural course of the blood, sooner or later produce a complete stasis of the circulation.

The word disease, must, therefore, be understood to signify disorders of a more extensive nature, the existence of which is revealed by phenomena of an entirely general character. Such, however, are frequently the results of local affections; the fact is established by daily experience; and we need only allude to the well-known effects of wounds and sores, in order to convince you that local causes frequently become the starting-point of general diseases. The results of our physiological experiments are, in this respect, perfectly in accordance with clinical observation; let, for instance, a poison be introduced under an animal's skin; its action, during the first few moments, is entirely confined to a single point, but within a given space of time, its effects are felt throughout the living frame; in what manner can similar facts be best explained? Such is the problem, the solution of which we are about to seek; the difficulty, as you perceive, has been distinctly stated.

That poisonous substances cannot act upon the tissues which compose the body, without having previously been absorbed, is perfectly clear; but when, under their influence, general phenomena are produced, the vessels or nerves must evidently have been called into play; the vascular and nervous systems alone, as you are well aware, are distributed throughout the body in one unbroken chain; and physiology, in this case, abundantly confirms the inferences drawn from our knowledge of anatomy. The well-known experiments of Magendie have shown that after injecting into the arteries of a limb any given toxic substance, its ordinary effects may be indefinitely suspended, by tying the veins which connect the diseased part with the remainder of the economy. The animal's life might, in this manner, be almost indefinitely prolonged; but as soon as the vessels are untied, the poison flows into the torrent of circulation, and gives rise, as usual, to a series of phenomena which end in death. The fact is well known to the inhabitants of tropical countries, who, when bitten by venomous serpents, immediately apply a close ligature over the limb, in order to prevent the passage of the venom into the blood until proper remedies have been applied.

But the vessels which convey into the depth of our tissues both poisonous substances and the ordinary elements of nutrition, belong, as you are perfectly aware, to the arterial system; on the other hand, all foreign bodies which pass into the blood through the process of absorption are conveyed into the arterial circulation by the veins: we thus discover that when general symptoms have been produced in this manner, the two great divisions of the vascular system have both been called into play. It sometimes occurs, however, that the noxious principle which circulates in the veins, is eliminated during its passage; such, for instance, is the case with sulphuretted hydrogen, one of the most dangerous substances we are acquainted with: when injected into the veins, it escapes from the lungs, and is, in this manner, prevented from passing into the arterial current; and the animal, in consequence, does not experience the slightest injury from the operation, the poison having been expelled before it could reach the tissues, which its contact would have disorganized. The venous, or absorbent system, is therefore that part of the vascular network which contributes to the production of general phenomena, when deleterious agents are introduced into the economy; nor do the arteries begin to play their part before the veins have accomplished theirs. But, as we have just stated, the poison is sometimes expelled before reaching the left side of the heart; and this elimination takes place on various points; but the pulmonary apparatus is the ordinary seat of the process. For this very reason, the inner coat of the lungs is perhaps the most powerful of all absorbent surfaces; and poisons, when directly brought to bear upon it, produce a more instantaneous effect than when deposited upon any other point; introduced, as it were, into the very centre of the arterial system, they pass at once into the circulation without any possibility of being expelled. Thus sulphuretted hydrogen, when introduced into the lungs, extinguishes life within a few seconds; while the same gas exists, to a considerable amount, in various parts of the intestinal tube, and even circulates in the veins, without producing the slightest inconvenience. It must, of course, be understood that the presence of poisons within the animal economy is perfectly innocuous as long as they are not collected together in sufficiently large quantities at a given moment. Small doses of the most dangerous substances may be successively poured into the vessels, at distant intervals, with perfect impunity. In estimating the noxious power of toxic bodies, the amount actually contained within the blood must alone be taken into consideration.

But another channel exists, through which the power of these agents is enabled to make itself felt throughout the entire economy; we allude, of course, to the nervous system. The essential difference which distinguishes sensitive from motor branches, has been carefully laid down in our preceding Lecture. The recurrent fibres, created for the purpose of transmitting to the central parts the impressions generated towards the surface of the body, are equally endowed with the property of communicating morbid impulsions to the entire economy; experimental proofs are not wanting to establish this fact. On one occasion, we injected fine particles of sand into the femoral artery of a dog; they reached of course the capillary vessels, and filled them up, so as to arrest the progress of the blood. An acute sensation of pain made its appearance, and a powerful reaction soon took place; yet in this case the venous system had not been interfered with, the passage of sand into the capillaries being utterly impossible. We therefore see that in this case, fever, loss of appetite, general uneasiness, and other physiological effects, were produced exclusively under the influence of the nervous system; and another experiment renders the demonstration still more forcible. When the anterior roots connected with the diseased limb have been divided, a complete paralysis of motion is the natural result; but sensation being entirely preserved, the pain is felt as before, and its consequences remain exactly the same. Let, on the contrary, the posterior roots be divided; and all general symptoms will at once disappear; motion of course remains, but pain no longer exists; and symptoms of a purely local character, such as a partial swelling of the limb, a certain degree of refrigeration, and other signs of arrested circulation, are the only phenomena observed. When the sensitive nerves have been preserved, the intensity of the febrile reaction which takes place is sometimes so powerful as to produce death.

Local affections are therefore totally distinct in themselves from real diseases; and, when they become general, the morbid impulse has been communicated to the economy by one of the two general systems, which pervade its entire extent; not, however, by that portion of each system which extends from the centre to the extremities; but, on the contrary, by that which returns from the surface to the central parts. The veins convey the foreign substance itself into the circulation, *in propriâ personâ*, if we may be allowed to use the expression; while the nerves only transmit impressions of a peculiar nature. It is a well-known fact that the venous circulation is frequently encumbered with putrid substances, small fragments of mortified tumours, fibrinous clots, and so forth; while the nervous fibre exerts over our organs a subtle and penetrating influence, and merely by transmitting the shock it has received, produces modifications of the most extensive character.

We have sufficiently proved, in the course of these Lectures, that the sensitive fibre alone enjoys this property; yet, in a

few cases, the motor branches appear endowed with it in their turn: this singular fact requires an explanation. When a sensitive nerve has been divided, its central extremity retains its own peculiar faculties, while the peripheric portion of the nerve is totally deprived of feeling and remains insensible to the most powerful agents. The reverse takes place with respect to the motor fibres; after dividing the trunk which has been laid bare, its peripheric extremity alone retains the property of drawing cries from the animal, when excited, while the central part remains deprived of all sensation. This extraordinary property of the motor fibres has received the name of Recurrent Sensibility, and is generally attributed to certain sensitive fibres, which, bending back towards their primitive source, follow the track of the motor nerves, but in the opposite direction; for as soon as the corresponding posterior root has been destroyed, all sensibility disappears in the motor fibres. Such is the contrivance (so to speak) which enables the motor nerves to borrow the properties of their congeners, and connect, in the morbid state, distant parts of the body with each other.

It may be inquired, *how* the impressions transmitted by the sensitive nerves succeed in producing so extensive a disorder as to superinduce anatomical injuries on various points; and physiological observations furnish us with the reply. Let the common carotid artery be laid bare in a dog, let a cardiometer be adapted to the vessel, and as soon as a sensitive nerve is excited, the rise of the liquid in the glass tube, and the sudden increase in the quickness of the pulse, sufficiently testify to the general influence exerted by the sensitive nerves over the whole system. Now let us suppose that (as in the case of local inflammation), a permanent cause of excitement exists: a constant acceleration of the pulse will be the result, and fever, with all its ordinary consequences, will shortly make its appearance. But in the case of sores and open wounds, an additional source of irritation is found; you are of course aware that when exposed for a certain time to atmospheric action, a nerve swells, becomes hard and shining, and possesses during a certain lapse of time an exaggerated amount of sensibility. Such, no doubt, is the real cause of the excruciating pains which, in the course of certain diseases, assail tendons, ligaments, fibrous membranes, and other equally insensible parts. A similar process no doubt takes place in wounds recently laid open, and exposed to the contact of air; during the first few moments, the lips of the wound not having yet been modified by the unusual irritation brought to bear upon them, no increase of pain is felt, no febrile reaction takes place. But after a short space of time,—a few hours in some cases, a few minutes in others,—when the extremities of the divided nerves have grown irritable and tumefied, all the symptoms of a general disorder break forth at once.

ORIGINAL COMMUNICATIONS.

ON THE USE OF THE OPHTHALMOSCOPE

AS A HELP TO

DIAGNOSIS IN DISEASES OF THE NERVOUS SYSTEM.

By JOHN OGLE, M.D. F.R.C.P.
Assistant-Physician to St. George's Hospital.

Daily observations recorded in various periodicals, are bringing this instrument into well-merited notice, as a means of assistance in clinical research; and as I have for some time been attempting to avail myself of its services in the investigation of certain disordered conditions of the brain (among my Hospital patients, and with the valuable aid of my friend Mr. Holmes), I read with very considerable interest the remarks made in your Journal of May 26, page 523, as to the use of this instrument by Mr. Wordsworth, in a case of Hemiplegia. Whether the instrument is destined to occupy any really high position (rendering in its way such services as does the stethoscope, for example) as respects our inquiries into disease which is not primarily that of the eye itself, frequent and continued use thereof in a multitude of cases alone can show. It has, however, for some time appeared to me, that this may eventually be said of it; but I confess, that although my present experience is certainly such as to give encouragement to the above idea, yet I have hitherto been unable (doubtless it may be from inexperience and imperfect manipulation of the instrument) to obtain by its use such effective views of the interior chambers of the eye even in a natural condition, as I have seen picturesquely pourtrayed in various works devoted to ophthalmoscopic considerations. If it be, however, that extended experience clearly proves that the deeper vessels and structures of the eye can be with facility explored by this instrument, then we have, I think, fair and plausible grounds for anticipating that it may materially subserve the interests of Diagnosis in the case of disease of the nervous system.

That the condition of the deeply-seated and delicate vessels of the eyeball may be, as it were, to a great extent (at least in some instances) a criterion of the state of the vessels of the brain structure may be with reason inferred from what we know of their anatomical relationship, their origin from the same arterial sources, and the innervation which for obvious physiological reasons, they enjoy in common with each other. And that the condition of the extra-cranial vessels may be regarded as a fair index of intra-cranial ones under certain conditions, is patent from the ecchymosis of the vessels of the conjunctiva, or of the skin of the forehead and temple, which is by no means infrequently witnessed after severe attacks of epilepsy, hooping-cough, or even as I have seen it, after protracted vomiting; in which cases, owing to violent muscular spasm, the return of blood from the inner parts of the head has been delayed or prevented simultaneously with impediment to its return from the face and outer parts of the head.

Especially may we, I think, expect that a deranged condition of the cerebral circulation may be, as it were, mirrored forth by the ascertained condition of the vessels and inner coats of the eye in those cases wherein this disorder is dependent upon disturbance of vaso-motor influence by reason of interference with distant parts of the sympathetic nervous system. The probability of this view presented itself to my mind three or four years ago when considering the various cases to which I alluded in a paper upon the Influence of the Sympathetic on the Eye (a). I then suggested that most likely the giddiness, dimness of vision, deafness, and other such symptoms often coincident with intra-thoracic aneurisms and other tumours about the neck, chest, etc., are in many cases quite independent of any true cerebral change, but merely result from interference with sympathetic nerve influence to the intra-cranial capillaries. This supposition appeared highly feasible as well from clinical cases as from the results of accidental injuries and experimental operations upon the sympathetic system.

Another instance of the relationship between intra and extra-cranial structures is afforded by the well-known connexion between a certain state of the cornea of the eye (known as arcus senilis) and certain conditions of the cerebral vessels. No doubt this state of the cornea also affords an insight into the condition of the general textures of the body, and the same may, no doubt, be said of the vessels of the choroïd and retina, inasmuch as they have been found affected in certain cases of albuminuria (albuminous amaurosis so called) in which, most likely, all the capillaries of the body, as well as the blood itself, are in a morbid condition. Nevertheless, that fact does not invalidate the supposition that from the deep-seated vessels of the eye, a knowledge of the cerebral ones may be gleaned, inasmuch as in many cases there seems no doubt that both these sets of vessels, as well as others in the body, are equally affected as part of a universally morbid state of the vascular system.

Knowing, then, how exposed to view the beautiful and minute vessels of the choroïd and retina may become by means of the ophthalmoscope, how easily any escape of their contents might be apparent,—knowing, also, how prone the cerebral capillaries are, under certain circumstances, to permit extravasations of blood, etc. to take place, and bearing in mind the probability of the condition of the ophthalmic vessels being as it were a *reflex* of those within the cranium, I was led, as I before said, to seek the aid of the ophthalmoscope in cases of disorders of the nervous system. I will now proceed to adduce one or two cases (all of which are still under my care) in which, in accordance with expecta-

(a) See *Transactions of the Royal Medical and Chirurgical Society*, vol. xlvi. page 397.

tion, this instrument has been the means of declaring an unhealthy state of the deep vessels of the eye in disease of the nervous system.

Case 1.—J. L. a man aged 55, suffering from continued giddiness, and "feeling as if intoxicated," and also from "sickness." The pupil of the *left* eye was rather larger than that of the right eye, but both acted, and that equally, on the stimulus of light. The muscles of the eyeballs and face were natural. The power of squeezing with the *left* hand much diminished. He said also that he could feel pinching of the skin on the *left* arm and wrist less acutely than on the opposite side. Movement of *left* leg in walking somewhat impaired. Tongue protruded straight; rather furred. Face and lips paleish. Pulse weak, but regular. An old scar existed, along with a depression in the surface of the frontal bone above the left eye, which the patient declared was only of two years' standing, and owing to a tumour which came simultaneously two years before, and broke of itself (most likely a sebaceous tumour). The patient spoke well and rationally, and stated that six months previously he had a stroke while walking on the road, and for twenty-four hours lost his consciousness and sight. After this, for two or three days, he had no power whatever of moving the *left* arm and leg, but subsequently he gradually recovered, with the exceptions above mentioned. "No specific cause for his affection was apparent."

Treatment has consisted of gentle alkaline aperients,—the nitrate of bismuth and chlorie ether — and under this the sickness entirely left him. Still the giddiness persisted for some time, but now has been gradually yielding to the use of bark with small doses of liq. hydr. bichlorid.

Examination by the Ophthalmoscope. — On two several occasions the ophthalmoscope was used by Mr. Holmes and myself after the pupils had been dilated with a solution of atropine dropped between the eyelids. We found, on the first occasion, that at the lower and outer part of the crimson field illuminated by the reflector, the *left* eye presented a dark mass of substance (no doubt the results of long-standing extravasated blood). This dark mass was of considerable size and regular in outline. After a fortnight's interval, it had exactly the same appearance, having undergone no appreciable change either in colour or size.

Case 2.—S. T., a bricklayer, aged 55, of spare habit, and short in stature, was suffering from giddiness, which he referred chiefly to the *left* side of the head, and from trembling of the arms on holding anything, and from very uncertain movement of the legs, owing to which he staggered in walking like a drunken man. There was also slight trembling of the facial muscles, the *left* side being more particularly affected. The sight was dim, and on turning the head round quickly, or frequently, the giddiness was brought on, and oftentimes single objects appeared double. Moreover, on his moving his head, strabismus was perceptible to the observer (though so slight and transient as to make it uncertain which eye-ball was at fault). Pupils equal and regular; ordinary movements of eyes natural; arcus senilis well shown in both eyes. No alteration in the sensibility of any part of the skin; urine not albuminous; pulse feeble, regular, seventy-five per minute. There was decided curvature of the upper part of the dorsal region of the spine towards the left side. It was stated that the present attack was of three weeks' duration, but that, three years ago, when engaged as a builder, he had been ill much in the same way, owing, as was thought, to intense anxiety. He then complained of a "jerking" of the muscles of the *left* side of the body, lasting for two or three minutes, and commencing with twitching of the *left* shoulder. It appeared, also, that, twenty years ago, he was much exposed, as a bricklayer, to wet, and had to discontinue that kind of work owing to pain in the right side of the body (apparently muscular). During this work he on one occasion hurt his left shoulder much in shooting a barrow of earth, and has felt the hurt ever since.

Treatment consisted of slight mercurial aperients, with quassia and iron and nitric acid, and blistering the nape of the neck. Under this the patient got very much better, and was only subject to giddiness at times. At one period his expression was that "he was only bad once or twice a week," at another that "he was all but well." Subsequently the giddiness returned to a much greater degree, and the pulse became very weak, but he had never, at any time, had pain. Moreover, excepting the giddiness, he had always felt himself in good health. Latterly he has become much better, but still staggers about uncertainly when walking.

Examination by the Ophthalmoscope. — The eyes were examined twice by the ophthalmoscope, the pupils being dilated by the atropine solution. "On both occasions a slight mass of black deposit was found, apparently upon the retina of the left eye, quite on the edge of the field brought into view." This was just the same on the second inspection after an interval of two weeks. After the second application of the atropine the patient complained of a very unusual symptom, saying that, for several days after its use to one eye, "objects appeared to that eye very much diminished in size, his own hand appearing to be only of the size of a doll's hand." Such was the patient's statement, but most likely this condition of sight was of long standing, though it had ben unnoticed. At a still later occasion, only a day or two ago, the patient, on closing the right eye, found that with the other one every object inspected was always much minified.

Case 3.—J. A., a man, aged 53, who formerly suffered from syphilis. In his case there was partial ptosis of the *right* upper eyelid, with divergent strabismus of the right eyeball, and very dilated and fixed condition of the pupil. Pupil of left eye natural in size but inactive and irregular (apparently from old syphilitic disease of the iris). Pain in the head and giddiness are greatly complained of, and also double vision, except when one eye was closed. Objects seen with the *right* eye always appeared *much larger* than they really were; and occasionally on closing the left eye, and opening the right one, suddenly he at once became very giddy. Excepting the sight, the special senses were in a natural state, as also the movements of the legs and arms. Urine not albuminous.

Treatment consisted of diuretics, with Plummer's pill, and, subsequently, the iodide of potassium and blistering the nape of the neck. From this he got much relief to the pain and giddiness, but nausea and vomiting came on, and he is now taking the Plummer's pills with columba and hydrocyanic acid with considerable advantage.

Examination with the Ophthalmoscope.—On examining the eye with the ophthalmoscope, after the atropine solution had been used to the left eye (not to the right, as the pupil was already well dilated), the lenses of both eyes were found rather opaque, and the right retina appeared much paler than the left one. No other unnatural condition was noticed, but on two occasions, at considerable intervals, that the instrument was used, "*there was intense pain* (hyperæsthesia of the retina) *in the right eye when the light of the reflecting mirror was turned upon the retina.*" This was not at all the case with the retina of the opposite eye.

I may here mention an interesting case (which I now have under my care) of amaurosis of both eyes in a boy, who has had some disease of the brain (most probably effusion into the ventricles). From being perfectly blind he is now recovering his sight with one eye, and I have found that the dilated and perfectly fixed pupil can be made to act, and that almost as completely (though rather more slowly) as a healthy one by repeated and long-continued use of the light thrown upon the retina by the ophthalmoscope. I look upon this as an indication, if such were necessary, that the retina is not much out of order, but that the cause of the amaurosis is more central in its origin, and I think the use of light in this manner may be made available as a means of Diagnosis. Moreover, it may be useful as a method of Treatment, and by means of quickening or keeping up the reflex function involved in the action of the iris under the stimulus of light, it may answer the same purpose which galvanism does when used to maintain or resuscitate the function of muscles and motor nerves in paralysed limbs.

Case 4 was that of P. R., aged 38, with a well-marked intra-thoracic aneurism, situated towards the *right* and upper part of the chest. The pupil of the *right* eye was much larger than that of the left one, but both act equally well, and are regular in outline. Thinking that this difference between the pupils depended upon some interference with the sympathetic nerve (b), and that probably from the same cause, the innervation of the vessels of the fundus of the eye might be affected, the eyes were examined by the ophthalmoscope, "numbers of darkish spots and specks (apparently the *débris* of ecchymosed blood) were seen on the field of the

(b) See the paper above quoted in the *Transactions of the Royal Medical and Chirurgical Society.*

retina. There was no increased sensibility to the stimulus of light."

Such are the cases which I thought it would be of interest and serviceable to bring forward as demonstrating the use of the ophthalmoscope in affections of the nervous system. I hope I may, at a later opportunity, be permitted to adduce still others, and again perhaps to refer to the above as being still under observation. I will make no further comment on the results of the ophthalmoscopic examination in the above instances, so far as they are for any important deduction, excepting to draw special attention to the great sensitiveness of the retina (as the acute pain showed) in Case No. 4, that viz. in which there was paralysis of the third cranial nerve on the right side. This symptom in such a case appears to be of great interest, and I do not recollect to have noticed it in any previous instance of this affection.

In conclusion, I would observe that no doubt in some cases the application of the ophthalmoscope may be instrumental in diagnosing (a matter so difficult, but so necessary) between giddiness and other symptoms proceeding from actual organic change, and the same symptoms arising from disturbance in other distinct parts, as in the digestive organs, and, therefore, strictly sympathetic in character. Again, it may prove useful as a means of diagnosis, when it is doubtful (especially in children, parturient women, etc.,) whether such and such symptoms are owing to *repletion* or to *defective* and even sinking powers, just as the state of the fontanelles is looked upon as being a useful guide in such doubtful instances. Might not the entire subject be greatly furthered, and much light thrown upon it, by judicious experiments on some of the lower animals; different conditions of the cerebral capillary system being artificially produced for the sake of contrasting different conditions of the vessels of the choroïd and retina?

13, Upper Brook-street.

ON A CONVENIENT NEEDLE FOR THE READY

APPLICATION OF METALLIC SUTURES

IN THE OPERATIONS OF

CLEFT PALATE, VESICO-VAGINAL FISTULÆ, ETC.

By P. C. PRICE, Esq.

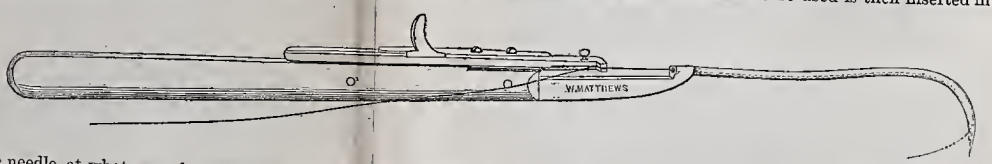
Surgeon to the Great Northern Hospital, etc.

Those Surgeons who are engaged in the renovation of deformities arising from arrest of development—such, for instance, as the deficiency of the soft portions of the roof of the mouth in what is commonly known as cleft or split palate; or in the reparation of breeches of structure, as those resulting in permanent lesions of the female bladder, vagina, and rectum,—have often doubtless experienced the necessity of such mechanical instruments as would enable an easy performance of an operation. Improvements in such necessitous instruments have by degrees been added to the operator's *armamentarium*; but still every addition seems to show the further necessity that exists for yet more useful mechanical aids. Since the introduction of metallic sutures (so ably and forcibly recommended by Dr. Marion Sims) for the more efficient closure of the structures of the bladder, vagina, etc., the want of a suitable means of appliance has been more than ever needed.

The ordinary curved needle set in a handle, and drilled with a single hole near its point is found inconvenient, for great difficulty is experienced in disengaging the metallic thread with which it is armed. To obviate this inconvenience, among other contrivances, was invented by, I believe, a German, a needle with a moveable point, but still further perfection and simplicity was needed. A short while since Mr. Startin, in the columns of this Journal, suggested the use of a tubular needle, which was a decided improvement, and one that was quickly recognised. Still, however, there seemed room for a more complete instrument to enable a free and ready application of the wire suture in cases rendered unusually difficult of management by reason of the position of the lesion, etc.

While lately witnessing one of Mr. Baker Brown's skilful operations for vesico-vaginal fistula, I was struck with the inconvenience that resulted from the method of applying the metallic suture (which, in this instance, required an extra pair of hands to arm the needle after its insertion through the soft tissues) by means of the ordinary grooved or tubular needle. To dispense with what I considered an impediment in these usually scientific and clever operations, I have devised the needle figured below.

It consists of a tubular needle, such as at first suggested, I believe, by Mr. Startin, set in a wooden handle, but immediately connected therewith by a rod of metal, which is out of the plane common to both the needle and its handle. Working on the upper surface of the handle is a steel slide with a forward and backward movement. At the front end of the slide is a catch-spring, regulated by a small screw-button. The arming of the needle is thus accomplished:—The slide, having a moving range of an inch or an inch and a-quarter, is to be drawn as far on to the handle as it will go; one end of the metallic thread to be used is then inserted into



the needle at what may be termed its breech, and pushed along the tube till it nearly reaches the point; the portion of wire that projects at the breech is then placed in the catch-spring, and the needle is ready for use.

Having inserted the point, and as much of the needle as is necessary, through the lips of the structure to be closed, the wire is made to project beyond the point of the instrument (as shown by the dotted line in the engraving) by pushing forward with the thumb or forefinger the slide. The projected wire is now caught with a pair of forceps, and disengaged by pressing with the forefinger the button-head which regulates the catch-spring, so that it can be readily and quickly drawn from the needle, or the needle from it.

The instrument is depicted about two-thirds its proper size, and was made for me by the well-known surgical mechanician, Mr. Matthews, of Portugal-street, Lincoln's-inn, and has been much approved of by Mr. Spencer Wells, and other Surgeons who are in the habit of performing certain plastic operations on the perineum, etc. In cleft-palate, as well as in operations about the genito-urinary parts, this needle will be found very advantageous, and will at once render the passing of metallic threads through the curtains of the soft palate a less complicated proceeding. It has been my good fortune to have assisted for many years my friend Mr. Fergusson in nearly all his numerous operations for split palate; and although his master hand makes perfect in utility incomplete surgical instruments, still I have occasionally met with instances in which a more ready appliance for the applicatin of the wire suture (which this distinguished Surgeon now usually employs in his palate operations) would have been of much advantage.

Green-street, Grosvenor-square.

M. Ricord's *externes* and *internes* at the Hôpital du Midi presented their master with a beautiful gold medal on his birth-day, as a mark of their gratitude and affection.

In the Crimea there were 28 deaths out of 33 primary amputations of the elbow-joint, and of 31 secondary disarticulations, 24 were fatal. Out of 68 disarticulations of the knee there were 62 deaths. The same operation once yielded in M. Velpeau's hands only 1 death out of 14 cases.—*M. Larrey.*